

UNITED STATES DISTRICT COURT
DISTRICT OF SOUTH DAKOTA
SOUTHERN DIVISION

UNITED STATES OF AMERICA, Plaintiff, vs. KEVIN JAY MAST, Defendant.	4:17-CR-40078-01-KES MEMORANDUM OPINION AND ORDER
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A superseding information was filed charging defendant, Kevin Jay Mast, with “disturbing protected wetlands of the United States” in violation of 16 U.S.C. § 668dd(c) and (f)(2). Docket 94. A bench trial was held on February 5, 2020. Docket 108. Based on the evidence and testimony submitted and the arguments of both parties, the court makes the following findings.

BACKGROUND

In 1973, the United States Fish and Wildlife Service (FWS) acquired an easement on Mast’s property from the previous property owners—the Vostads. Tr. 57; Ex. 1. The easement prohibited draining of “small wetland or pothole areas suitable for use as waterfowl production areas.” Tr. 379; *see also* Ex. 1. The easement also restricted the landowner from “draining or permitting the draining, through the transfer of appurtenant water rights or otherwise, of any surface water . . . now existing or recurring due to natural causes on the above-described tract” Tr. 58; Ex. 1.

To make his land more suitable for farming, Mast decided to install drain

tile to drain water from certain areas of his property in Brookings County, South Dakota. Tr. 271. In 2010, Mast requested approval for his drainage project from the United States Natural Resources Conservation Service (NRCS). Tr. 35, 217-18. Mast filled out an AD-1026 form, as required by the Federal Food Security Act Program, requesting NRCS to complete a formal wetland determination on his property prior to installing the drain tile. Tr. 217-18, 220-21, 245. NRCS informed Mast that his property was subject to the 1973 FWS easement and instructed Mast to seek permission from FWS for his property project. Tr. 219-23; Ex. 27.

Mast then contacted FWS. Tr. 183, 399. FWS created and sent Mast a map of the 7 wetland areas FWS had identified on his property. Tr. 177, 179-80; Ex. 3. With the map, FWS explained that Mast's proposed drain tile project would violate the 1973 easement terms and suggested alternative locations where Mast could install the tile without interfering with the identified wetlands. Tr. 80-82, 180-83; Ex. 3. The letter advised Mast that it was Mast's "responsibility to contact [FWS] if there are any questions concerning mapped wetlands" and requested that Mast provide FWS notice at least three days prior to any excavation or drain tile installation on his property. Tr. 84, 183; Ex. 3.

In 2012, two years after Mast's initial request, NRCS sent Mast a map that differed from the 2010 FWS map. Tr. 225-27, 245-48; Ex. 28. The gap in processing time was attributable to a backlog of AD-1026 requests within the agency. Tr. 227-29. Because Mast had not cancelled his original 2010 AD-1026 form after contacting FWS, NRCS proceeded with Mast's request. Tr. 230. With

the map, NRCS advised Mast that it was Mast's "responsibility to ensure that [his] actions do not impact wetlands protected by [FWS] or any other conservation easement." Tr. 223, 251; Ex. 28.

In 2013, Mast installed drain tile on his property with the help of two contractors, Brandon Hope and Jordan Warne. Tr. 270-71, 295-309; Ex. 18-20, 50. The tile contractors installed drain tile on approximately 15,800 feet of land. Tr. 77. The United States now alleges the tile was installed in violation of the 1973 easement and disturbed the FWS identified wetlands. Docket 94.

PROCEDURAL HISTORY

On September 6, 2017, Mast was charged with "disturbing protected wetlands of the United States" in violation of 16 U.S.C. § 668dd(c) and (f)(1). Docket 2. On January 18, 2018, a jury found Mast guilty of the lesser included offense of violating 16 U.S.C. § 668dd(c) and (f)(2). Docket 45. On April 20, 2018, Mast filed a timely appeal to the Eighth Circuit Court of Appeals. Docket 59. On September 16, 2019, the Eighth Circuit vacated Mast's conviction and remanded the case for further proceedings. Docket 80; *see also United States v. Mast*, 938 F.3d 973, 978 (8th Cir. 2019). A superseding information was filed on January 10, 2020, charging Mast with only the lesser included offense of "disturbing protected wetlands of the United States" in violation of 16 U.S.C. § 668dd(c) and (f)(2). Docket 94. The United States moved for a bench trial. Docket 93. The court granted the motion for a bench trial, and a bench trial was held on February 5, 2020. Dockets 100, 108. The parties stipulated that all previous evidence, exhibits, testimony, motions in limine, orders on motions

in limine, objections, and orders on objections from the first jury trial would be part of the record in the bench trial as if it was one continuous trial. Docket 110 at 6-7. The United States presented no additional evidence at the second trial. *Id.* at 8. Mast recalled defense expert Wes Boll. *Id.* at 9-10.

ANALYSIS

I. Superseding Information

16 U.S.C. § 668dd(c)—part of the National Wildlife Refuge System Administration Act of 1996—outlines permitted and prohibited activities on land within the National Wildlife Refuge System. The statute provides that “[n]o person shall disturb, injure, cut, burn, remove, destroy, or possess any real or personal property of the United States, including natural growth, in any area of the [National Wildlife Refuge] System[.]” *Id.* In the superseding information, United States alleges that:

Between on or about July 22, 2010 and January 10, 2020, in Brookings County, in the District of South Dakota, the defendant, Kevin Jay Mast, did disturb, injure, and destroy real property of the United States in that he drained and caused to be drained, without the authority and permission of the United States of America, wetlands included in Brookings County Easement number 80X, 1, covering the SE 1/4 NW 1/4 and Lots 1 and 2 of Section 30, Township 110N, Range 51W, 5th Prime Meridian, all in violation of 16 U.S.C. §§ 668dd(c) and 668dd(f)(2).

Docket 94. The charge in the superseding information is classified as a Class B misdemeanor. *See* 18 U.S.C. § 3559(a)(7). The maximum punishment Mast faces under 16 U.S.C. § 668dd(c) and (f)(2) is a term of imprisonment of not more than 180 days, a fine of not more than \$5,000, or both prison and a fine. *See* 16 U.S.C. § 668dd(c) and (f)(2); 18 U.S.C. § 3571(b)(6).

II. Elements

The United States must prove Mast's guilt beyond a reasonable doubt.

See Sullivan v. Louisiana, 508 U.S. 275, 278 (1993). The parties agree that the United States must prove the following 6 elements beyond a reasonable doubt:

1. The United States holds a property interest, established through a properly recorded and accepted easement;
2. Identifiable wetlands existed at the time the easement was conveyed;
3. Mast knew or should have known that there was a substantial risk that his actions would violate or fail to comply with any of the provisions of the National Wildlife Refuge Act or any regulations issued thereunder;
4. Mast engaged in prohibited activity by disturbing, injuring, or destroying one or more of the wetlands at issue;
5. Mast's actions caused surface and/or subsurface damage that injured, disturbed, or destroyed one or more of the wetlands; and
6. Mast's activity was not permitted or otherwise authorized.

See Docket 111 at 2-3; Docket 112 at 2; *see also Mast*, 938 F.3d at 977; *United States v. Peterson*, 2008 WL 4922413, at *1 (D.N.D. Nov. 12, 2008), *aff'd*, 632 F.3d 1038, 1043 (8th Cir. 2011); 16 U.S.C. § 668dd(c) and (f)(2). Mast argues that the United States did not meet its burden of proof on each of the elements. Docket 112 at 2. The court will address each element in turn.

A. Element 1: The United States holds a property interest, established through a properly recorded and accepted easement.

The first element the United States must prove beyond a reasonable doubt is that the United States holds a property interest, established through a

properly recorded and accepted easement. *See Peterson*, 2008 WL 4922413, at *1. South Dakota lies within the prairie pothole region. Tr. 363. The prairie pothole region has many small wetlands scattered throughout the area. *Id.* The latest inventory of water wetlands in eastern South Dakota is over 800,000 wetland basins. Tr. 367. The region is the “primary breeding area for continental waterfowl populations in North America.” Tr. 363. Because of this, the United States purchased numerous easements from landowners to protect these wetlands. Tr. 46; *see North Dakota v. United States*, 460 U.S. 300, 303-05 (1983). Known as negative easements, the easements convey to the easement holder the right to “restrain[] the owner from doing that with, and upon, his property which, but for the grant or covenant, he might lawfully have done[.]” *Chapman v. Sheridan-Wyoming Coal Co.*, 338 U.S. 621, 626-27 (1950) (internal quotation omitted). Thus, the easements prohibit landowners from draining wetlands or destroying a wetland’s suitability for waterfowl. *See North Dakota*, 460 U.S. at 303.

Here, an easement was conveyed by the previous landowners, the Vostads, and executed by the United States on April 25, 1973. Tr. 57; Ex. 1. The United States paid the Vostads \$1,000 for the easement rights over “small wetland or pothole areas suitable for use as waterfowl production areas” located on the property. Tr. 57, 379; Ex. 1. The Vostads, heirs, successors, and assignors agreed to “cooperate in the maintenance of the aforesaid lands as a waterfowl production area” by not draining, ditching, filling, leveling, or burning any of those areas. Tr. 58-59; Ex. 1. The easement also specifically

restricted the landowner from “draining or permitting the draining, through the transfer of appurtenant water rights or otherwise, of any surface water . . . now existing or recurring due to natural causes on the above-described tract”

Tr. 58; Ex. 1. The easement was properly recorded in the Brookings County Register of Deeds Office as Brookings County Easement number 80X, 1, covering the SE 1/4 NW 1/4 and Lots 1 and 2 of Section 30, Township 110N, Range 51W, 5th Prime Meridian. *See* Ex. 1, 3. As such, the legal rights of the United States stem from the easement. *See United States v. Vesterso*, 828 F.2d 1234, 1242 (8th Cir. 1987) (explaining that a recorded easement properly accepted is “sufficient proof that the United States has a property interest” in the parcel). In his closing argument brief, Mast acknowledges the 1973 easement and does not dispute that the United States has a property interest in the property and that the easement restricts the landowner from draining “any surface water” that existed at the time the easement was conveyed or is recurring. *See* Docket 112 at 3. The United States has put forth proof beyond a reasonable doubt that the United States holds a property interest in Mast’s property, established through a properly recorded and accepted easement. *See* Tr. 56-59; Ex. 1. Thus, the United States has met its burden on this element.

B. Element 2: Identifiable wetlands existed at the time the easement was conveyed.

1. Easement and Easement Summary Text

In conjunction with the first element, the United States must next prove beyond a reasonable doubt that identifiable wetlands existed at the time the

easement was conveyed. *See Peterson*, 2008 WL 4922413, at *1. Wetlands are defined as land that:

(1) Has predominance of hydric soils; (2) Is inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions; and (3) Under normal circumstances does support a prevalence of such vegetation

7 C.F.R. § 12.2(a). Here, as was typical of pre-1976 easements, there is no contemporaneously-filed map from 1973. *See* Tr. 379. Although no map was filed at the time the easement was conveyed, “[a]s with many such easements negotiated by FWS before 1976, FWS utilized a standard wetland conveyance document that included the entire tract of land in its legal description.”

Peterson, 632 F.3d at 1040. The United States does “not need to legally describe the confines of each covered wetland under the pre-1976 easements.” *Id.* at 1042 (internal quotation omitted). “Without the aid of a map filed with the easement . . . however, the [United States] still can prevail by proving that the easement encumbers *all* wetlands on the tract that were in existence at the time of the conveyance.” *Id.* (emphasis in original). Thus, the Eighth Circuit has found that the United States can prove the existence of wetlands covered under a pre-1976 easement “despite the easement’s failure to include a contemporaneously-filed map or provide a section-by-section breakdown of the wetlands acreage.” *Id.* at 1043.

Here, the text of the 1973 easement supports a conclusion that the easement covers all wetlands then-existing on the property. The easement prohibits “draining or permitting the draining, through the transfer of

appurtenant water rights or otherwise, of *any* surface water, including lakes, ponds, marshes, sloughs, swales, swamps, or potholes, *now existing or recurring* due to natural causes on the above-described tract” Tr. 58; Ex. 1 (emphasis added). As David Azure, former FWS regional easement coordinator, testified at trial, based on the language of the easement, no wetland areas then-existing on the property were intended to be excluded from the easement. Tr. 375, 379. Along with the language of the easement, the easement summary tract record lists that FWS had purchased 33 acres of wetlands between the 2 tracts of land owned by the Vostads. *See* Tr. 382-84; Ex. 29. And the identified wetlands between the 2 tracts are estimated to total 24.8 acres. Tr. 108. Thus, read together, the easement text and the easement summary demonstrate that the 1973 easement covers all wetlands on the tract that were in existence at the time of conveyance or recurring. *See Peterson*, 632 F.3d at 1042.

2. Then-Existing Wetlands in 1973

Because the easement covers all wetlands that were in existence at the time of conveyance or recurring, the United States must next prove that the identified wetlands existed in 1973. *See id.* at 1041-42. Mast argues that the United States has failed to prove the existence of 6 of the 7 identified wetlands. Docket 112 at 4. Mast does not contest that wetland area 3 is a wetland that was identifiable and existing at the time the easement was conveyed in 1973, but contests the 6 other areas identified by FWS. *Id.* The United States argues it has proven beyond a reasonable doubt the existence in 1973 and recurrence

of each of the 7 identified wetlands based on the aerial photography and expert testimony in evidence. Docket 111 at 4-11.

Comparing photographs of landscape from before and after an easement was conveyed is an acceptable and reliable method of establishing the existence of wetland areas at a certain moment in time. *See Peterson*, 632 F.3d at 1041 (finding that the use of aerial photography and expert testimony amounted to substantial evidence that the wetlands existed at the time of conveyance). Because there is no contemporaneously-filed map identifying the protected wetlands, like the court in *Peterson*, this court must look to all testimony and evidence, including statements and opinions of expert witnesses, in deciding whether identifiable wetlands existed at the time the easement was conveyed in 1973. At the jury trial, the United States presented aerial photography and testimony from several witnesses about the existence of the wetlands in 1973, and the defense presented a rebuttal expert witness. The court will summarize the testimony and evidence below.

First, Emily Fischer, a biology technician with FWS, testified at trial. Tr. 93-94. In her capacity as a biology technician, Fischer mapped pre-1976 wetland easements. Tr. 94. In 2010, Fischer created a map of Mast's property that outlined areas FWS believed to be wetlands covered under the 1973 easement. Tr. 94-99. Fischer discussed how she reviewed the full FWS file of a property when creating a pre-1976 easement map. Tr. 95. Fischer testified that she reviews the legal description of the property, evaluates if there are any areas to be excluded from the easement, and then collects available aerial

photographs of the property to create the FWS map. Tr. 95-96. A computer software program then layers the aerial photographs so that Fischer can view and compare the same space and location on a property over a period of years. Tr. 99-101. Fischer testified that once the photographs are transposed, she looks for signatures of wetland basins that have similar shapes, sizes, and locations over the years. Tr. 102-04. With the images transposed, the software then makes a diagram of a map in draft form. Tr. 104. After Fischer's map is printed in draft form, a manager with FWS completes a physical ground check of the areas that were identified in the draft map. Tr. 104-05.

Using this same technique, Fischer viewed aerial photographs of Mast's property from before and after the 1973 easement. Tr. 94-110; *see also* Ex. 51-64. The earliest photograph Fischer used was from 1956. Tr. 110. The remaining photographs were taken after 1973. *Id.* On each aerial photograph, Fischer marked the areas that in her opinion appeared to show evidence of wetland signatures and created the map. Tr. 101-02; Ex. 2. The map showed 7 wetland areas. *See* Ex. 2. The map was approved by her supervisor, Tom Tornow, on August 16, 2010. Tr. 106; Ex. 23.

Second, Tornow, former project leader and refuge manager for FWS, testified at trial. Tr. 171-72. Tornow visited Mast's property on August 13, 2010, to see if there were depressed areas that would hold water and to verify the areas identified on the draft map created by Fischer. Tr. 106, 174-78. Tornow noted that when he conducts site visits, he looks for plant life and the type of vegetation that develops over and around wetland conditions because

plant life around depressions can be indicative of whether the area is a wetland. Tr. 206. Tornow testified that often wetlands are very temporary in nature and will hold water during spring months and then dry up during summer and fall months. Tr. 178. Tornow explained that when an area has both permanent wetlands and wetlands that change with seasons, the property becomes very valuable to both early and late migration birds. *Id.*

Based on his training and observations in August of 2010, Tornow verified that the 7 areas on Mast's property were wetland areas and that each area had some depression or ability to hold water at some point during the year. Tr. 178-79. Later in 2010, after completing the ground check, Tornow provided Mast with Fischer's map diagram and a letter that stated in part:

The attached maps provided to you represents the [FWS's] effort to depict the approximate location, size and shape of all wetland basins protected by the provisions of the easement contract using the 'Summary Acreage' figure information, maps and aerial photographs available at the time this map was prepared. However, wetlands are hydrologically dynamic systems, with expanding and contracting water levels. This map is not meant to depict water levels in the wetland in any given year.

Ex. 3; *see also* Tr. 80-81, 179. The letter also explained what wetlands are and how wetlands are a hydrologically dynamic system that can fill or dry up throughout the year. Tr. 181.

Mike Estey, FWS deputy chief of the habitat and population evaluation team, also testified at trial. Tr. 319. Estey has over 20 years of experience analyzing aerial photography to identify the presence of wetland signatures and delineating wetlands. Tr. 321-26; Ex. 47. In his current position, Estey supervises staff that analyze aerial photography to identify wetlands. Tr. 325-

26; Ex. 47. Estey has viewed thousands of photographs to identify wetland signatures, conducted thousands of visits to properties to analyze aerial photography, and delineated tens of thousands of wetlands. Tr. 324-25; Ex. 47.

Estey testified that he examined aerial photographs of Mast's property from both before and after 1973 to look for evidence of wetland areas or signatures. Tr. 328. Estey testified that he analyzes the aerial photographs for wetland "signatures," like typical wetland area color and texture combinations. Tr. 324. Estey explained that the method of viewing aerial photographs for wetland signatures from both before and after the date of conveyance is a reliable method to identify wetlands because "[w]etlands are persistent through long periods of time." Tr. 327. This is in part because wetland areas formed during glaciation will continue to exist unless destroyed. *Id.* Estey also explained that analyzing aerial photographs to determine the presence of wetland areas is helpful because "you get distinct signatures from those wetland conditions that are easy to observe from the air." *Id.* Thus, Estey's review of aerial photographs over a period of time can provide evidence that a wetland area historically existed and existed in a certain year. *See* Tr. 328. The Eighth Circuit in *Peterson*¹ recognized Estey's review of aerial photography as a

¹ In *Peterson*, the United States "introduced an aerial photograph of [the landowner's property] taken in 1962, four years before the easement was conveyed." 632 F.3d at 1041. Like his testimony in the present case, Estey testified in *Peterson* that the wetlands depicted in the photograph were of the same approximate size, shape, and location as the identified, drained wetlands. *Id.* The Eighth Circuit concluded that the photographic evidence and Estey's expert testimony taken together amounted to substantial evidence that the drained wetlands existed at the time of conveyance. *Id.*

method of identifying the existence of wetland areas at a certain time period.
See 632 F.3d at 1041.

Like his method in *Peterson*, Estey reviewed over 50 aerial photographs of Mast's property dating back to September of 1972. Tr. 329-47; Ex. 66-71. Estey explained that he analyzes the photographs for actively growing vegetation, while also looking at the texture and color of areas on the photographs. Tr. 330. Changes in landscape design, growing or cropped vegetation, and darker colors or textures in the photographs are all "signatures" of wetlands. *Id.* Estey explained that in his expert opinion each of the "signatures" were signatures of wetland areas. Tr. 330-47. Estey also explained the signatures of wetland areas in aerial photographs of Mast's property from 1940, 1951, 1952, 1964, 1970, and 1972. Tr. 337-47; Ex. 66-71. Estey methodically identified the 7 wetland areas at issue. Tr. 339-47.² While doing so, he explained that a wetland area will not always be the same shape or color in each aerial photograph, depending on how wet the area is when the photograph is taken or the time of year. Tr. 342.

After reviewing the aerial photographs that pre-dated the 1973 conveyance, Estey also reviewed aerial photographs of Mast's property from 2010 and determined that the wetlands depicted in the historical aerial photographs were of the same approximate size, shape, and location as the wetlands in the 2010 aerial photograph. Tr. 345-47; Ex. 54. After testifying

² The court refers to the identified wetlands by the wetland numbers used by Estey and other witnesses throughout the trial. *See* Tr. 339.

about each photograph, Estey noted that he was “confident those areas identified [by FWS] are all of the same general size and location and wetlands.” Tr. 347. Thus, in Estey’s expert opinion, aerial photography for decades before and after the 1973 easement was conveyed demonstrate that each of the 7 areas are identifiable wetlands that existed in 1973. Tr. 346-47.

Brandon Hope also testified at trial. Tr. 268. In 2013, Hope was a contractor hired by Mast to install drain tile on Mast’s property. Tr. 269-70. Hope testified at trial that he viewed Google Earth aerial photographs prior to excavating Mast’s property to best determine where to install the drain tile. Tr. 271-72. Hope noted that he looked “for wet spots where crop does not grow.” Tr. 272. Hope installed more drain tile in wetland area 4 and near wetland areas 5, 6, and 7 because in his opinion those areas were “wet.” Tr. 281-82.

Jordan Warne with Meyer Services, Inc., another contractor hired by Mast to install drain tile, testified that he also used Google Earth aerial imagery and spoke to Mast to determine what areas were problem wet areas on Mast’s property. Tr. 294-95, 299-300; *see also* Ex. 20, 50. Warne stated that “anything other” than the main line installed by Warne was an area that Mast identified as a wet problem area. Tr. 301. Thus, all the areas drained, other than the main line, were low spots Warne and Mast identified as wet problem areas. Tr. 301-02. These areas are the same wetland areas identified by FWS as wetland areas 1 and 2. *Compare* Ex. 2 *with* Ex. 20, 50. In Warne’s opinion, the areas identified as wetland areas 1 and 2 were “nonproducing” areas where drain tile should be installed. Tr. 302. On April 11, 2014, FWS officers

observed and photographed these areas on Mast's property while conducting routine aerial compliance flights and ground checks. Tr. 49-69; Ex. 4-17.

FWS wildlife biologist Charles Loesch also testified at trial. Tr. 359. Loesch has over 27 years of experience and testified about the suitability of the wetland areas on Mast's property for waterfowl production. Tr. 359-74; Ex. 48. Based on his experience, Loesch provided information about the 7 wetland areas identified by FWS and the property's suitability for waterfowl production. Tr. 366-73. Loesch explained that because South Dakota is in the prairie pothole region, potholes are the "primary breeding area for continental waterfowl populations" Tr. 363. Loesch noted that "[t]he presence of wetlands is paramount in that the wetlands are the primary feature on the landscape that drives the distribution abundance of waterfowl populations in the prairies" and that without wetlands, there can be no waterfowl. Tr. 366. Loesch described that a pothole does not have to hold surface water year-round for the area to be useful for waterfowl production and that instead some wetland areas tend to be small, fairly shallow, and dry out periodically to allow quick decomposing of vegetation. Tr. 368-71. These characteristics make a shallow or small wetland's value "magnified." Tr. 368. Loesch explained that wetlands are extremely valuable in South Dakota because duck production benefits from small, shallow areas that are intermittently wet and dry. Tr. 367-68.

Loesch described the wetland areas depicted in the aerial photographs of Mast's property as a wetland "complex," noting that the small, shallow wetland

areas are valuable because they allow more ducks to breed than large wetland areas like wetland area 3. Tr. 369-72. Loesch noted that the small wetlands on Mast's land can be occupied by higher densities and quantities of waterfowl as opposed to a property with fewer, large wetlands. Tr. 371. This is because, as Loesch explained earlier, small and shallow areas that dry out periodically allow vegetation to decompose quicker and are thus extremely important to waterfowl in the spring. Tr. 367-371.

Finally, defense expert Wes Boll testified at both the jury trial and court trial. Tr. 411; Docket 110 at 10. Boll is a wetland scientist who does wetland delineations in South Dakota, North Dakota, and Minnesota. Tr. 412-14; Ex. 242. Boll's expert opinion concerns the distinction between "saturation" and "inundation" in aerial photography. In Boll's expert opinion, simply seeing "signatures" of wetlands in aerial photography is not enough to determine whether there is standing water in the area. Tr. 421-22. "[S]aturation is understood to be close to the surface" but not actually on the surface, and if an area shows saturation the area may not have surface water. Tr. 424. If an area shows inundation, however, the area would show an "observation of surface water, meaning water above the surface, ponded water." Docket 110 at 25. Like Estey, Boll went through each pre-1973 aerial photograph and described what he saw as indicators of saturation, but not inundation. Tr. 422-37. Boll opined that the pre-1973 photographs showed no indication of surface water in identified wetland areas 1, 2, 4, 5, 6, and 7, even if the areas showed indicators

of wetness from saturation. Tr. 438-39. In Boll's opinion, those areas are not "wetlands" and would not be protected under the FWS easement. Tr. 459-60.

In 2012, Boll created a LIDAR data map of Mast's property. Docket 110 at 12; Ex. 289. LIDAR is a data set that is collected aerially using radar flown in a gridline pattern to produce one-foot topographic contours of the land. Docket 110 at 13-15. In Boll's opinion, when the LIDAR map is transposed over aerial photographs of Mast's property prior to 1973, none of the FWS identified wetland areas were "inundated" in the photographs. *Id.* at 32-44. Instead, in Boll's opinion, any topography changes and drainage patterns pointed out by FWS experts at the jury trial in the aerial photographs were not the result of inundation or ponding surface water, and thus were not wetlands. *Id.* at 117.

After considering all the evidence, the court finds that the United States has proven beyond a reasonable doubt that each of the 7 identified wetlands existed when the easement was conveyed in 1973. The court finds that the reoccurrence of wetland signatures is consistently displayed in the 7 identified protected areas in aerial photographs from before and after 1973. *See* Ex. 66-71. Although some of the photographs are lower resolution and taken during drier months of the year, making the wetland areas more difficult to observe, the expert testimony consistently concluded that there was evidence of wetland signatures in each of the 7 identified areas, and photographs from different years and seasons showed wetland signatures in the same approximate size, shape, and location as the identified, drained wetlands. *See* Tr. 339-47. Both Estey and Loesch explained how wetlands are persistent over a historical

period of time and the importance to waterfowl of smaller, more shallow wetlands that are not wet year-round. *See* Tr. 327, 369-72. Tornow, Warne, Hope, and FWS officers all went on site to Mast's property and testified to the wetland features they observed. *See* Tr. 178-79, 270-72, 299-302. The court is not convinced that photographs from late summer months with minimal ponded water demonstrate the identified protected areas were not wetlands in 1973. Rather, these areas were the areas both contractors determined should be drained and were areas consistently identified by FWS officers to show signatures of wetlands. Taken together, the testimony and photographic evidence introduced at trial establishes beyond a reasonable doubt that the 7 areas identified by FWS existed when the easement was conveyed in 1973 and have been recurring wetlands following the time of conveyance.

Mast argues that this court previously ruled at the pretrial hearing that the 2010 map created by Fischer and any testimony regarding the map was inadmissible to prove the existence of a wetland or surface water at the time the easement was conveyed in 1973. Docket 112 at 5; *see also* Docket 72 at 47-48, 50. But Mast mischaracterizes the United States's reliance on the map or the testimony of witnesses about the map. Each witness did not use the 2010 map to prove the existence of the wetlands. Instead, each witness used the map as a guide to identify each wetland by a number. *See, e.g.*, Tr. 339. Witnesses then testified with the use of aerial photography taken before and after 1973 to show the existence of the 7 wetland areas. The witnesses discussed photos taken in 1940, 1951, 1952, 1956, 1964, 1970, 1972, 1979,

1984, 1986, 1993, 1994, 1997, 2003, 2004, 2005, 2006, 2008, and 2010. *See* Tr. 101-03, 114-22, 127-28, 337-47; *see also* Ex. 40, 51-71. Thus, consistent with its previous ruling, this court does not rely on the 2010 map as evidence of the existence of the wetlands in 1973, and instead relies on the testimony and aerial photographs admitted at trial.

Mast also argues that Loesch only made generalized statements and that his testimony was evasive. Docket 112 at 7-8. Mast argues that Loesch never confirmed that any areas on Mast's property constituted a complex wetland system at the time the easement was conveyed in 1973. *Id.* The court disagrees. Loesch focused most of his testimony on the suitability of an area for waterfowl production. Tr. 363-73. At trial, Loesch testified with supporting photos displayed on easels in the courtroom. Tr. 369-72. Loesch testified that based on his experience and reviewing the photographs, the areas identified as wetlands would be suitable for waterfowl production. Tr. 369, 372. Loesch was not a witness whose primary focus was on identifying the 7 wetlands. Instead, Loesch's testimony focused on the identified areas on Mast's property being part of a wetland "complex," and he explained how varying sizes of wetlands are extremely valuable to migratory waterfowl in the prairie pothole region. Tr. 363-73. Loesch's testimony also explained how an area can still be classified as a wetland even if it is small, shallow, or dries out periodically. *See* Tr. 368-69. Thus, the court does not characterize Loesch's testimony as evasive or generalized.

Mast next argues that Estey is not a certified wetland delineator. Docket

112 at 8. Estey has over twenty years of employment with FWS, has held titles as wildlife biologist and geographic information specialist, and has extensive experience classifying wetlands in the prairie pothole region. Tr. 321-23; *see also* Ex. 47. Estey has viewed thousands of photographs to identify wetland signatures, conducted thousands of visits to properties to analyze aerial photography, and delineated tens of thousands of wetlands. Tr. 324-25.

Mast also argues that Estey never went to Mast's property to physically inspect the wetlands on site. Docket 112 at 8; *see also* Tr. 348. But Estey testified that his method of identifying wetlands focuses in great part on analyzing aerial photographs for the presence of wetlands signatures. Tr. 334-37. Estey explained that surveying aerial photographs actually provides a better understanding of what areas are identifiable wetlands as opposed to completing a site visit because a biologist can only see the landscape of a property as it is on that single day, during that specific season, when conducting a site visit. Tr. 327. With aerial photography, however, Estey explained that one can better observe the property over a historical period of varying seasons, climates, and years. *Id.* And although Estey never completed a ground check, numerous FWS officers did and testified to what they observed. *See* Tr. 49-69, 90, 174-78, 375-403. Thus, although Estey never went to Mast's property, Estey completed a thorough review of aerial photographs of the property and identified the wetlands.

Finally, Mast argues that Estey could only identify with certainty wetland area 3. Docket 112 at 9. The court disagrees. Throughout his testimony Estey

discussed pre-1973 photographs and described each of the 7 identified areas. Tr. 339-47. For example, Estey testified that in the 1940 aerial photograph you could see wetland area 3 very clearly, that wetland area 4 was dried out but that the wetland “signature is still present,” and that wetland areas 5, 6, and 7 were not as clear as the 1972 photograph but you could “see the signatures there still going on” in area 6. Tr. 339-40; Ex. 66. As to the 1951 photograph, Estey immediately pointed out wetland areas 1 and 2, testified that there was a “pretty clear signature” in wetland area 4, that wetland area 5 was “very clear” with a “lighter center” indicating that the area is wetter, and that wetland area 6 was identifiable by the “blotchiness of tall-growing vegetation, wetland vegetation” surrounding it. Tr. 340-41; Ex. 67. In that same photograph, Estey also quickly identified wetland areas 3 and 7. Tr. 340-41; Ex. 67. Estey pointed out each of the 7 wetland areas on the 1952 aerial photograph, noting that wetland area 5 “is right there and very clear on that date” compared to earlier photographs. Tr. 341-42; Ex. 68.

As to the 1964 aerial photograph, Estey explained that wetland area 4 had a “pretty clear signature” indicative of “standing water there earlier in the season” and that you “can easily” see wetland areas 1 and 2, including a whole drainageway channel between areas 1 and 2. Tr. 342-43; Ex. 69. Estey also identified the 7 wetland areas in the 1970 photograph, noting that wetland area 6 was shaped much more clearly and that wetland area 7 is “very clear, distinct” and has crop around it. Tr. 345; Ex. 70. Estey then compared these

pre-1973 photographs with an aerial photograph from 2010. Tr. 345-47; Ex. 54.

Although Estey opined that some aerial photographs were better than others, that some photographs were taken during drier years or months, and that some wetland areas on the property were larger and more permanent throughout the seasons and years, Estey still identified each of the 7 wetland areas during his testimony. *See* Tr. 339-47. After testifying to each photograph, Estey noted that he was “confident those areas identified [by FWS] are all of the same general size and location and wetlands.” Tr. 347. Thus, the court disagrees that Estey expressed doubt about the 6 other identified wetland areas and finds his testimony credible.

Even defense expert Boll agreed that evidence of saturation was consistently displayed in the aerial photographs. Tr. 469-70. On cross-examination, Boll agreed that all 7 wetland areas identified by FWS “repeatedly showed up for most of the years” in the aerial photographs. Tr. 466. Boll also agreed that “[a]t a minimum” all 7 areas identified by FWS had signatures of saturation. *Id.*; *see also* Docket 110 at 66. Boll testified that apart from wetland 5, all the other identified wetlands also had disturbed cropping. Tr. 467. Boll testified that the saturated areas were wetter than all the other areas around them and that he could not say for certain that the areas didn’t pond water at some point during the year. Tr. 469. Boll also testified that some of the identified wetland areas did not have crops growing in the area until 2014, after the drain tile was installed. Tr. 468.

At the court trial, Boll also agreed that the aerial photographs of Mast's property would only show "ponding" water at the time the photographs were taken. Docket 110 at 66. As to a 1993 photograph, Boll testified that he saw surface water in wetland area 3 and that there was indication of saturation and possible inundation in wetland areas 2, 6, and 7. *Id.* at 96. Boll also admitted that because his LIDAR map only showed one-foot increment changes, the map would not display changes in elevation that occurred that were potentially less than one-foot. *Id.* at 65. Thus, in Boll's LIDAR map, depressions in the ground less than 12 inches lower than elevation would not be displayed. *Id.*

Because Boll's LIDAR map did not show changes in elevation of less than one-foot, Boll agreed that there could be ponding water in a particular area that would not be detected by LIDAR. *Id.* at 65, 67. Boll also changed several of his statements in the court trial when shown photographs with evidence of "ponding" water. For example, Boll admitted, after being shown an aerial photograph from 1984, that the dark signatures of the identified protected wetland areas were consistent with areas of ponding water. *Id.* at 68-71, 100; Ex. 53. Boll agreed that aerial photographs from 1993 and 1994 showed wetland signatures and "prove[d]" that water could be a pond in those areas. Docket 110 at 74-77; Ex. 40. And Boll agreed that an area can hold water one year, but, dependent on the amount of rainfall the following year, may not hold much water at all. Docket 110 at 100. Thus, the court finds the testimony of Estey and his use of analyzing aerial photography more credible than the testimony of Boll and the use of LIDAR in this case.

After reviewing the record, the court finds that the photographic evidence, maps, and expert testimony, taken together, amount to substantial evidence beyond a reasonable doubt that the 7 wetland areas existed at the time of the easement's conveyance in 1973. The United States has met its burden of proof on this element.

C. Element 3: Mast knew or should have known that there was a substantial risk that his actions would violate or fail to comply with any of the provisions of the National Wildlife Refuge Act or any regulations issued thereunder.

The third element the United States must prove beyond a reasonable doubt is that Mast knew or should have known that there was a substantial risk that his actions would violate or fail to comply with any of the provisions of the National Wildlife Refuge Act or any regulations issued thereunder. *See Mast*, 938 F.3d at 977. On appeal, the Eighth Circuit Court of Appeals held that the United States must also prove a *mens rea* element based on the statutory language and legislative history of 15 U.S.C. § 668dd(c) and (f)(2). *Id.* The Eighth Circuit concluded that “subsection (f)(2) requires the government to prove beyond a reasonable doubt that Mast should have known that there was a substantial risk that his actions would violate[] or fail[] to comply with any of the provisions of th[e] Act or any regulations issued thereunder[.]” *Id.* (internal quotation marks omitted). The Eighth Circuit also stated that “the lesser offense requires proof of the defendant’s negligence. In our view, the evidence presented at trial would have been sufficient to allow a reasonable juror to convict Mast under the proper formulation of the lesser offense.” *Id.* at 978 (citing *United States v. Keys*, 721 F.3d 512, 519 (8th Cir. 2013)). At the court

trial, Mast did not present any additional evidence as to the remanded *mens rea* element. See Docket 110.

Here, the court finds that the United States has met its burden on this element. Mast knew, or should have known, that his actions would “violate[] or fail[] to comply with any of the provisions of th[e] Act or any regulations issued thereunder[.]” *Mast*, 938 F.3d at 977 (internal quotation marks omitted). At trial, the United States put forth evidence that Mast completed an AD-1026 form and contacted NRCS in February of 2010, seeking approval for his drain tile project. Tr. 218. On July 22, 2010, Ryan Forbes of NRCS sent Mast a letter, explaining that NRCS had received Mast’s AD-1026 request. Tr. 219-220; Ex. 27. The letter alerted Mast that his land was protected by the 1973 FWS easement and specifically instructed Mast to contact Tornow with FWS “to obtain permission from [FWS] for [Mast’s] proposed drainage project.” Tr. 222; Ex. 27. The letter also instructed Mast to contact NRCS once he received a response from FWS to let NRCS know whether Mast wished to proceed forward with his AD-1026 request. Tr. 222; Ex. 27. Forbes testified that NRCS could not give Mast permission to do the drainage project on areas protected by the FWS easement because it was not within the agency’s authority. Tr. 222-23. Finally, the letter informed Mast that it was Mast’s “responsibility to ensure that [his] actions do not impact wetlands protected by the [FWS] easement or any other conservation easement.” Tr. 223; Ex. 27.

Mast contacted Tornow as instructed. Tr. 399. In response, Tornow sent Mast a letter from FWS by certified mail on October 11, 2010. Tr. 78, 179; Ex.

3. Mast signed a certified mail receipt when he received the letter on October 13, 2010. Tr. 78-79, 179-80. This return receipt was then attached to a copy of the sent letter and stored in an FWS file. *See* Ex. 3. Mast maintains that he was busy with harvest at the time he received the letter and does not remember reviewing the letter or signing for it. Tr. 402. With the letter, Tornow enclosed a copy of the 1973 FWS easement and a copy of the map prepared by Fischer and FWS depicting the wetland areas that FWS determined were protected under the easement. Tr. 180-82; Ex. 3. Tornow explained that there was “a conflict” with Mast’s tiling plan and the FWS identified wetlands. Ex. 3. Tornow also attached an aerial photograph of Mast’s property with hand-drawn markings. *See* Ex. 3. This photograph was a “tiling map” Mast had originally provided to FWS indicating the areas where Mast intended to install drain tile on his property. Tr. 183; Ex. 3. FWS sent the photograph back to Mast with red markings indicating areas where FWS would permit drain tile installation. Tr. 184; Ex. 3. None of the areas that FWS identified as protected wetlands were marked in red. Tr. 83-84.

Tornow’s letter explained that although the FWS map was intended “to depict the approximate location, size and shape of all wetland basins protected by the provisions of the easement contract,” because “wetlands are hydrologically dynamic systems, with expanding and contracting water levels,” the map did not depict a specific water level. Tr. 80-81; Ex. 3. The letter explicitly advised Mast that the protected areas could not be drained without FWS’s permission, noting that any “draining . . . of wetlands depicted on the

wetland easement map without a permit issued by [FWS] is a violation of the provisions of the easement.” Tr. 82; Ex. 3. The letter directed that it was Mast’s “responsibility to contact [FWS] if there are any questions concerning mapped wetlands.” Tr. 82, 183; Ex. 3. Finally, the letter requested that Mast notify FWS “at least 3 days prior” to excavation when the tiling contractors had flagged the locations where tile would be installed. Tr. 84, 186; Ex. 3. No evidence was submitted that Mast contacted FWS after receiving the letter. *See* Tr. 187. Mast also did not provide FWS the requested three-day notice that he was going to begin installation of drain tile on his property. *Id.*

In the original NRCS letter from 2010, NRCS notified Mast that once he received a response from FWS he was to contact NRCS so the agency would know “whether or not [the landowner] wished the NRCS to proceed with [the] AD-1026 request.” Tr. 228-29; Ex. 27. Forbes testified that typically when a producer receives a letter back from FWS telling them that their proposed drainage plan will impact an easement, the producer then cancels their AD-1026 request with NRCS. Tr. 229-30. If they do not, however, NRCS must proceed forward with the request. Tr. 230. Thus, because Mast did not cancel his original AD-1026 request with NRCS, NRCS sent Mast a second letter on June 11, 2012. Tr. 225-27, 229-30, 245-46; Ex. 28. The two-year delay was caused by a backlog of requests with the agency. Tr. 227, 248.

The 2012 NRCS letter informed Mast that Craig Veldkamp, an area soil scientist with NRCS, had made a preliminary certified wetland determination based on Mast’s 2010 AD-1026 request for Farm Bill Program Benefits. Tr.

243-45; Ex. 28. The letter stated that it was not a permit and advised Mast in bold font that Mast was “responsible for complying with other Federal, state, and local regulations as they apply to altering wetlands and drainage flows.” Tr. 249, 252; Ex. 28. The letter also advised Mast that it was Mast’s “responsibility to ensure that [his] actions do not impact wetlands protected by a [FWS] or any other conservation easement.” Tr. 251; Ex. 28. The letter provided the phone number and contact information of FWS. Tr. 251; Ex. 28. Mast did not contact NRCS or FWS after receiving the letter. Tr. 256, 385-86. After receiving these letters, Mast went forward with his drain tile project. Tr. 270-71.

Mast maintains that he believed he was acting in compliance with the FWS and NRCS letters. Docket 112 at 19. Mast relies on the fact that the 2012 letter from NRCS enclosed maps that differed from the 2010 FWS map in identified wetlands. *Id.* Mast argues that it was reasonable for him to believe that the two agencies were cooperating and that the 2012 NRCS map was “compatible with FWS’s requirements.” *Id.* at 21. Even if the maps differed, however, the 2012 NRCS letter explicitly warned Mast that it was his responsibility to contact FWS. *See* Ex. 28. No evidence was submitted that Mast contacted FWS after receiving the 2012 NRCS map. The letter also informed Mast to contact NRCS before installing the drain tile. *See id.* Mast failed to contact NRCS or FWS or provide the three-day notice FWS requested. Tr. 187. Instead, the evidence introduced at trial showed Mast ignored the instructions in the three letters, did not contact FWS or NRCS prior to starting the project, and did not tell either contractor about the easement. Tr. 256, 284,

305; Ex. 3, 27-28. Based on this evidence, the court finds that Mast knew that his actions would “violate[] or fail[] to comply with any of the provisions of th[e] Act or any regulations issued thereunder[.]” *Mast*, 938 F.3d at 977 (internal quotation marks omitted).

Even if Mast did not know, the United States has established beyond a reasonable doubt Mast was negligent and should have known “that there was a substantial risk that his actions would violate[] or fail[] to comply with any of the provisions of th[e] Act or any regulations issued thereunder[.]” *Id.* (internal quotation marks omitted). On remand, the Eighth Circuit noted that “the lesser offense requires proof of the defendant’s negligence. In our view, the evidence presented at trial would have been sufficient to allow a reasonable juror to convict Mast under the proper formulation of the lesser offense.” *Id.* at 978. “Negligence requires only that the defendant should have been aware of a substantial and unjustifiable risk[.]” *Id.* at 977 (internal quotation omitted). Based on the above summarized evidence and the explicit advisements made in the 2010 and 2012 letters, Mast *should have known* that there was a substantial risk that carrying out the tile project on his land would violate the 1973 easement or fail to comply with any of the provisions of the Act or any regulations. *See id.* at 978; *see also* Ex. 3, 27-28. Mast ignored the instructions and requests made by both agencies and proceeded with his project without contacting FWS or NRCS. Mast was aware of a “substantial and unjustifiable risk.” *Mast*, 938 F.3d at 977 (internal quotation omitted). Although he was aware of the risk, Mask proceeded forward with his project without a permit

from FWS, without providing a three-day notice to FWS, and in a manner that differed from FWS's proposed drain tile locations. This was negligent. Thus, under either *mens rea*, the United States has met its burden of proof on this element.

D. Element 4: Mast engaged in prohibited activity by disturbing, injuring, or destroying one or more of the wetlands at issue.

The fourth element the United States must prove beyond a reasonable doubt is that Mast engaged in prohibited activity by disturbing, injuring, or destroying one or more of the wetlands at issue. *Peterson*, 2008 WL 4922413, at *1. The evidence presented at trial establishes beyond a reasonable doubt that Mast engaged in prohibited activity by disturbing, injuring, cutting, burning, removing, or destroying 6 of the 7 wetlands.

At the jury trial, the United States presented evidence that Mast's contractors installed drain tile on and around each of the 7 wetlands. *See* Tr. 62-69, 72-77, 268-84. 294-306; Ex. 7-20, 50. Hope and Warne described at great length how drain tile was installed on Mast's property and how the ground is excavated to complete the project. Drain tile tubing is installed at an angle to direct the flow of water in a designated direction and is inserted three to four feet below the surface of the ground with a plow. Tr. 273-75, 277-78. Where drain tile is installed, the plow must cut through the surface of the earth to install the plastic tubing. Tr. 278, 303. The plow acts "like a knife." Tr. 303. After the lines are installed, a backhoe must be used each place where two lines are to connect, digging into the ground and excavating so that the contractor can properly connect the lines. Tr. 278, 282, 302-04.

Mast failed to provide either contractor the 2010 map or tell them about the FWS easement. Tr. 284-85, 305. Hope testified that he spoke to Mast about where Mast, as the landowner, would like the tile placed. Tr. 271. As discussed earlier, Hope also testified that he installed more drain tile in areas that he believed were “wet.” Tr. 281-82. Warne testified that a main tile line was installed to divert water in the northwest corner of Mast’s property from the adjacent property to the west. Tr. 300; Ex. 20. Warne also testified that he connected lateral lines to the main tile line in identified “problem area[s],” which were the same areas identified by FWS to be wetland areas 1 and 2. Tr. 300-01. Both Hope and Meyer Excavating gave FWS officers tile maps that indicated where they placed tile on the property. Tr. 72-75; Ex. 18-20. For example, everywhere there was a yellow line depicted on Hope’s map, the tile plow cut into the ground, and anywhere there was a connection between the two yellow lines, a backhoe dug into the ground to make the connection. Tr. 282; see Ex. 19. FWS then created a map combining the tile maps made by Warne and Hope. Tr. 76; Ex. 50. The tile contractors installed drain tile on approximately 15,800 feet of land. Tr. 77.

Following the installation of the drain tile, on April 11, 2014, FWS officers observed and photographed disturbed soil consistent with the installation of tile on Mast’s property while conducting routine aerial compliance flights. Tr. 49-54; Ex. 4-6. FWS officers then conducted a follow-up ground check on April 14, 2014. Tr. 62-69; Ex. 7-17. The ground check confirmed where drain tile was installed and the soil was disturbed. Tr. 62-69.

At trial, FWS Officer Brian Keller indicated where tile was installed and where the officers found disturbed soil by placing the photographs from the 2014 ground check over the 2010 wetland map. Tr. 62-69; Ex. 2, 7-17. Keller testified that based on his experience he determined where the tile had been placed on Mast's property by looking at the grooves in the ground made from the tiling machines. Tr. 91.

Mast specifically contests that drain tile was installed in protected wetland area 5. Docket 112 at 21. Mast argues that there was no tile installed in wetland area 5 and there are no tile connections in wetland area 5. *Id.* After reviewing the photographs and maps, the court agrees that the United States put forth no evidence that tile was installed within wetland area 5. Although evidence showed that tubing lines curved around wetland area 5 and extended east to west to connect to a tile line near wetland area 7, reasonable doubt exists that wetland area 5 was disturbed, removed, injured, cut, or destroyed. *See* Ex. 50. Thus, the court finds the United States has not shown beyond a reasonable doubt that Mast engaged in prohibited activity in wetland area 5.

Excluding wetland area 5, however, Mast engaged in prohibited activity by disturbing, injuring, or destroying 6 of the wetland areas on his property. Everywhere Warne and Hope installed drain tile, the plows cut the surface of the earth to install the tubing. Tr. 278, 303; *see also* Ex. 18-20, 50. Every area where lines were connected, a backhoe dug into the ground and excavated the earth so the lines could be connected. Tr. 278, 282, 302-04. A 2014 ground check showed drain tile installed on the property resulting in the drainage of

the wetland areas and disturbed soil. Tr. 62-69; Ex. 4-17. Thus, based on the testimony at trial and the photographs and maps, the United States has proven beyond a reasonable doubt that Mast engaged in prohibited activity by disturbing, injuring, or destroying 6 wetland areas protected under the easement, excluding wetland area 5.

E. Element 5: Mast's actions caused surface and/or subsurface damage that injured, disturbed, or destroyed one or more of the wetlands.

In conjunction with element 4, the United States must next prove beyond a reasonable doubt that Mast's actions caused surface and/or subsurface damage that injured, disturbed, or destroyed one or more of the wetlands. *Peterson*, 2008 WL 4922413, at *1. Mast argues that the United States did not present evidence comparing the wetlands water levels and conditions in 1973 to when the protected areas were drained. Docket 112 at 21-23. As discussed above, the United States met its burden to identify the wetlands, and courts have found that the United States is not required to prove the precise water levels as they existed in 1973. *See Peterson*, 2008 WL 4922413, at *7 (finding that the defendant's actions damaged the wetlands and that the United States did not have to put forth evidence as to the precise water levels in existence at the time of conveyance in 1966).

Here, the United States has proven beyond a reasonable doubt that Mast's actions damaged the surface or subsurface of each of the 7 wetlands. The undeniable purpose of installing drain tile below ground is to drain the water collecting above the surface. Tr. 273, 305-06. As discussed above, the

United States put forth testimony and evidence that showed beyond a reasonable doubt that 6 of the wetlands had surface damage by the installation of drain tile. Hope and Warne both testified as to how the tile was installed beneath the surface with tile plows, backhoes, and shovels that break the surface and the depth of the tile installed. Tr. 276-80, 296, 302-04. Keller testified that about 6 to 8 inches of the depth of the earth had been disturbed. Tr. 68-69; *see also* Ex. 16. Hope explained that the drain tile installed is designed to draw away excess moisture held in the soil in the subsurface of the ground. Tr. 292. Hope also testified that after installing the drain tile he observed water flowing out of the tubing while on site. *Id.* Similarly, Warne testified that after installing the tile he observed water flowing through the drain tile “pretty much right away.” Tr. 305-06.

In addition to the evidence discussed in element 4 and the damage caused by the installation of the drain tile by the contractors and observed by FWS officers in 2014, the United States also presented evidence on the effects draining one wetland area can have on another wetland’s surface or subsurface area. For example, Loesch testified at length that draining the surface water of one wetland area not only eliminates that specific area’s suitability for waterfowl production, but can reduce the suitability of the waterfowl production of other wetlands within the wetland complex as a whole. Tr. 372-73. Loesch explained that when a small wetland area is drained of water artificially, like when an area is drained with drain tile, the wetland area may no longer have waterfowl production value. *Id.* Thus, based on the testimony

and photographic evidence presented at trial, evidence of surface or subsurface damage on each of the 7 protected wetland areas was established beyond a reasonable doubt.

Mast argues that the water removed by the drain tile is not naturally occurring water, but is instead water from neighboring properties. Docket 112 at 22. Mast points to Boll's conclusion that "Mast's property exhibited the same indicators and wet signatures in 2014, after the tile was installed, as it did in 1972, just months before the [e]asement was conveyed." *Id.* (citing Tr. 457-59). But this argument ignores the evidence of surface water and recurring water that was in existence before 1973 and was demonstrated in the photographic evidence prior to the easement conveyance. Mast has put forth no evidence that the drain tile removed water exclusively transferred onto his property from neighboring property. Instead, the tile contractors testified that the drain tile removes all water from the areas, and expert testimony described how moving water from other wetlands destroys surrounding protected wetland areas. See Tr. 268-306, 359-373. For example, Hope testified that the tile is designed to draw out extra moisture held in the soil that has gotten down to the depth of the tile, as opposed to neighboring water. Tr. 292. Thus, the court does not agree that the water drained from Mast's property was solely water from surrounding property, and instead was surface, subsurface, and recurring water on his property. Based on this evidence, the United States has shown beyond a reasonable doubt evidence of surface or subsurface damage on each of the 7 protected wetlands.

F. Element 6: Mast’s activity was not permitted or otherwise authorized.

Finally, the United States must prove beyond a reasonable doubt that Mast’s activity was not permitted or otherwise authorized. *See Peterson*, 2008 WL 4922413, at *1. Mast argues that the United States has failed to prove beyond a reasonable doubt that his activity was not permitted or otherwise authorized, arguing entrapment by estoppel as a defense. Docket 112 at 23-25.

As outlined in the final jury instructions at trial, “Entrapment by estoppel is a defense based on advice from a government official that certain conduct is legal.” Docket 40 at 8. Mast has the burden to prove by the greater weight of the evidence:

One, that government agents or officials took it upon themselves to define for Mast the scope of his legal obligation—in this case, the legality of installing tile on a parcel of land subject to an easement held by the United States;

And two, that Mast reasonably relied upon the government agent or official’s advice in conducting his affairs.

Id.; *see generally* 8th Cir. Model Jury Instructions Criminal, § 9.01A (2018).

Entrapment by estoppel most often is available when the government official “committed affirmative misconduct,” for the defense “applies only when an official assures a defendant that certain conduct is legal, and the defendant reasonably relies on that advice and continues or initiates the conduct.” *United States v. Hullette*, 525 F.3d 610, 612 (8th Cir. 2008) (internal quotation omitted). Mast relies on the 2012 NRCS letter, arguing that he did not need to

contact FWS after receiving the letter because he had already contacted FWS in 2010 and believed the agencies were working together. Docket 112 at 24.

Mast's reliance on the NRCS letter is misplaced. The 2012 NRCS letter makes general statements about Mast's rights as a landowner and his obligations. *See* Ex. 28. The letter specifically references Mast's "responsibility to ensure that [his] actions do not impact wetlands protected by the [FWS] or any other conservation easement." Tr. 223, 251; Ex. 28. There is no evidence that FWS granted Mast permission for the excavation or tiling project he arranged. Instead, evidence in the record shows that permission was specifically denied by FWS. As discussed in detail in element three, Mast never contacted FWS after 2010, never received a permit from FWS, and failed to provide three-day notice to FWS that he was moving forward with his tiling project. *See* Tr. 187. There is no evidence that Mast received permission or authority by FWS to install drain tile on his property in the manner he did.

Even if Mast relied on the 2012 NRCS letter, Mast must also show that the reliance was reasonable. *See Hullette*, 525 F.3d at 612. Mast has failed to show that reliance on the 2012 NRCS letter was reasonable under the circumstances. The 2012 letter explicitly advised Mast that it was his responsibility to make sure that his actions did not affect the FWS easement. *See* Ex. 28. The letter never stated that the agencies were working together or that the NRCS map was an updated version of the FWS map. Instead, the letter instructed Mast to contact FWS and provided the contact information to do so. *See id.* Mast did not contact either agency to ensure that his actions would not

disturb protected areas. This was not reasonable. His entrapment by estoppel defense fails.

Mast also argues that Tornow highlighted protected wetland areas 1 and 2 in red on the tiling photograph as areas that tile would be allowed. Docket 112 at 23 (citing Ex. 3). After reviewing the tiling photograph, the court disagrees that Tornow highlighted wetland areas 1 and 2 as acceptable areas to disturb. Instead, the photograph clearly shows arrows that Tornow highlighted outside and away from the boundaries of the wetlands identified by FWS. *See* Ex. 3. Comparing the aerial photographs of Mast's property and the FWS map created by Fischer with the tiling photograph with red highlighted arrows, there is no evidence that Mast's activity on areas 1 and 2 was permitted or authorized.

Instead, FWS never authorized or gave Mast permission to drain any of the protected wetland areas on his property. As summarized above, the FWS letter explicitly told Mast that the wetland areas could not be drained without permission from FWS. *See id.* The letter noted that "[a]ny burning, draining, filling, or leveling of wetlands depicted on the wetland easement map without a permit issued by FWS is a violation of the provisions of the easement." Tr. 82; Ex. 3. Mast never received a permit or contacted either agency to provide notice of installing drain tile on his property or to seek authorization. Tr. 228, 256, 385-86. Mast also failed to provide FWS the requested three-day notice prior to installation of drain tile on his property. Tr. 186-87; Ex. 3. Thus, based on this

evidence in the record, the United States has proven beyond a reasonable doubt that Mast's actions were not permitted or otherwise authorized.

CONCLUSION

The United States has established by proof beyond a reasonable doubt each of the essential elements for 6 of the 7 protected wetlands. Thus, it is

ORDERED that for the reasons contained in this order, the verdict in this case is that the defendant, Kevin Jay Mast, is guilty of the sole count in the superseding information.

Dated May 21, 2020.

BY THE COURT:

/s/ Karen E. Schreier

KAREN E. SCHREIER
UNITED STATES DISTRICT JUDGE